

Journal no VI

Frederick V. Coville

(Sunday) May 10, 1891

We reached Red Rock about 2 A.M. where we changed horses and got a cup of coffee. We reached the summit north of Red Rock at about sunrise, and at nine o'clock in the morning came to Indian Wells. We took breakfast here and changed both horses and driver. At about six o'clock in the afternoon we reached Haywood Meadows where we took supper and changed horses.

May 11, 1891.

Keeler, Inyo County, Cal.

We reached here this morning at 1:30 A.M. My saddle horse was left at Indian Wells to be brought in by the next stage

The distances travelled yesterday and the day before by stage are as follows: Mojave to Red Rock

; Red Rock to Indian Wells

Indian Wells to Haywood Meadows

; Haywood Meadows to Keeler

Mr. H. E. Wilkinson the U.S. Signal Officer here has very kindly given me the use of his office while in town.

May 12, 1891.

Keeler, Inyo Co., Cal.

I remained at Keeler to-day
answering correspondence.

May 13, 1891

Keeler, Inyo County, Cal.

I remained at Keeler to-day
arranging notes

May 14, 1891.

Keeler, Inyo Co., Cal.

I made a collecting trip to-day in the mesa between Keeler and Cima Gorda Mt.

The soil is made up of stone broken up so as to be quite small, but little water-worn; and filled and drifted over with sand. The soil is quite alkaline, as indicated by slight deposits in favorable places, and is especially marked as differing from similar mesas in the other valleys by the absence of Larrea except for a short distance below the mouths of the canons and in the beds of the canon washes. The bushes of Larrea in these places appear very healthy, and flower and fruit profusely.

The following plants were

seen in addition to a few
others collected. Alt. 3650 to 3700 ft.

1105 to 1125 m.

Distichlis maritima

Atriplex confertifolia

Suaeda suffrutescens

Cleome sparsifolia

Cleoniella obtusifolia

Gilia leptomeria

Oenothera scapoidea purpurascens

Oenothera gauraeflora

Atriplex parryi

Franseria dumosa

Sarcobatus vermiculatus

Biscutella californica

Krynitzkia circumsissa

Eriogonum veniforme

Malacothrix sonchoides

Oenothera brevipes

Lepidium fremontii

Oryzopsis cuspidata

Encelia eriocephala

May 15, 1891

Keeler, Inyo County, Cal.

I went collecting to-day along the lake shore about a mile northwestward from town and then struck into the mesa northward through the sand-hills about a mile and then returned direct to the town.

The lake is bordered near Keeler and as far as the mouth of Owens River by a strip, from a hundred yards or even less to a mile in width, of clayey sand with a deposit of soda and salt upon it, the sand particles firmly enough held together to prevent drifting by the wind. This ground is firm, dry on the surface, but well supplied with more or less alkaline water be-

neath. On the margin of this strip farthest from the water there is an abundant growth of Distichlis maritima, scantily mixed in some places with other small herbs. In the densest soda deposits the salt-grass cannot grow however and a large part of the lake-shore is therefore actually devoid of vegetation. In many places, however, springs of fresh, or nearly fresh, water come up along the beach; and these are surrounded by growths of tules (Scirpus fiongus, S. olneyi, and rarely, at this part of the lake, S. lacustris occidentalis) and rushes (Juncus mexicanus).

In the salt-grass, which extends backward into looser less alkaline sand are commonly found

Nitrophila occidentalis

Heliotropium curassavicum

Cordylanthus

Atriplex

Cleomella parviflora brevipes

Juncus mexicanus

Scirpus nevadensis

Still farther back from the shore the sand is looser and but slightly alkaline on the surface so that it drifts readily and is piled into sandhills. The most conspicuous and abundant shrub of these sandhills is

Sarcobatus vermiculatus

accompanied by

Atriplex parryi

Atriplex confertifolia

Suaeda suffruticosa

Back of the sandhills the mesa begins with

Atriplex confertifolia

Franseria dumosa

Atriplex hymenelytra

Dr. Young's plate additional
to those we got up and to
a few others collected today were
as follows

Chenopodium murale
Atriplex phyllaster

Malva parviflora

Juniperus virginiana

Polygonum perfoliatum

Composita, dianthus, and other
Corynephora

Nierembergia rotundifolia

Atriplex canescens

Sesuvium affine

Malva angustifolia

Lupinus angustifolius

Leontice leontopetaloides

Verbena glandulosa

Veronica canescens

Veronica canescens

May 16, 1871

Reber, Inyo County, Cal.
Drove today with Bob and the
son and Lulu home to Brawner
and the marble quarry.

On the trip out I stopped at
the old Brawner ranch then fol-
lowed along the road at the base
of the foot hills to the marble-
quarry. The earth-quake was
below the ranch and the foot
of hill instead is still
clearly discernible.

When in the marble quarry
we took a cross road to the
rock flat along the lake now
named by that road.

Several new plants were col-
lected at the quarry & the old
Brawner ranch and on the
whole way by some others were
collected which the following

are

Forsteria = Trisilia pulchella

Ligustrum vulgare
Sesbania canescens
Scorpiurus purpureus
Chorizanthe rigida
Eriogonum (Sulphur)
Bigelovia grandiflora
Anemone californica
Lycium cooperi
" madrense
Nicotiana
Chenopodium
Melilotus var. oliveri

Beaumont May 14, 1891

Weller, Big Bayou

around at Weller Bay

Mr. Weller came in from
Cottonwood Station for supplies on
party, Mr. Weller himself and
Big Bayou encamped there.

Aug 15, 1900

Wolo & Camp, Pennington Mts, Co.
 I left Reeder this morning
 with Mr. Gardner by the Cotton
 wood Creek trail following the
 northward end of the Largo mts
 just south of the divide. We
 were tramping nearly two hours
 and a half when we came to a valley
 filled with grass arborescens, to
 be known in these notes as
 guaca Valley. The trail then
 gradually became steeper and
 went farther westward passing
 through a small narrow
 valley containing a low water
 hole, and descended first to the
 bed of a stream to the divide be-
 tween Pennington and Largo Mts.
 The camp is about ten
 miles westward from the
 divide, about a half mile
 west of Jackson Spring, about
 50 yards from the stream.

The names following are defined to show what is meant by the

Mill Can Divide is the divide between the mouth of Panamint Valley and Saline Valley.

Mill Canon is the name given for the divide down into Panamint Valley.

Willow Creek Canon is the canon which the stream from Jackass Spring flows into Saline Valley.

A dry arm of Willow Creek Canon meets Mill Canon at Mill Canon Divide. This is known as the south fork of Willow Canon.

Down River is the elevated plateau bounded on the south by the Argus and Coso Mts., on the east by Panamint Valley, on the north by Saline Valley, and on the west by Carr Grade mt.

and Owens Valley

Wickson travelled Keler to
Willow Creek Camp about 20 miles

May 19, 1881.

Willow Cr. Camp, Peninsular side, Cal.

= 6400 ft. = 1950 m.

Altitude reading at camp 5550

Mr. Tompston and I went out

in the morning on the hillside
going northward and lying just
north of camp. This hillside is
rocky (granite) and is covered
with a comparatively dense
growth of shrubs. Its northward
slope prevents the growth of

Pinus monophylla.

The ^{Pinus} ~~Pinus~~ which are very abundant
on the opposite side of the narrow
valley occupied here by Willow Cr. I.

The lower part of the pine
forest is well developed
throughout the whole basin
in which it is remarkable as
being almost entirely devoid
of Juniperus californica. On the
slope north of this was a
few of it and here this appears
to have been suppressed
as we stumbled over to be seen

This hillside soil, it should be noted is rocky and in granitic soil, is characterized by the following predominant shrubs

Yucca, dark green viridis

Psoralea odorata glandulosa

Ceanothus

Ericameria canescens

The following plants were also seen on this hillside

Polygonum virginicum

Bignonia, stems white, flowers

Thunbergia, same as 27, condensatus

Ribes leptanthum

Silene fruticosa

Castilleja, smooth tall

Rosa

Salix longifolia

lanceolata

Polygonum hybridum

Salvia no 761

Monarda no 236

Phacelia geminata

Uvularia *gibba*

Collomia *annua* no 750

Anemone

Viola *auria*

Solidago

Wetelia, same as 116, *albicaulis*

Brigelovia grandiflora

Polygonatum *circumvicium*

Layia *glandulosa*

Arabis no 725, *pulchra*

Phacelia *ramosissima*

Cryptantha *cupulata*

Actinome

Erythronium *albidum*

Cnicus

Diaphyllum

Anisotoma *scabris*

Selinum *columbianum*

Micromeria *multiflora* *pubescens*

Castilleja

Paeonia no 781

Stipa

Gilia, *glabron*

Eriogonum, shrubby, *setiferum*

Ceanothus occidentalis

Thymelaeace

Sticks, a m curvipes

Chilothrix monophylla

Bellflower

allende making at summit of hill

9150. = 7600 ft. = 2015 m.

This afternoon Mr. Lanstru and I ascended the hill and found it covered with pines [^] Pinus monophylla with slope down to the camp, but its uppermost part is probably of sub-pine motor again as it bears no pines and appears to run over from a slope of sub-pine character on the south side.

The plants here abundant in the pine zone and apparently characteristic of them are

Pinus monophylla

Ribes leptanthum ?

Artemisia tridentata

Lupinus, same as 164

Par same as 77

Pop, no 112, californica.

The dense shade of the firs
may have prevented some char-
acteristic plants from growing
in this particular place. How-
ever the firs are wanting
Artemesia tridentata is especially
abundant.

The following plants additional
to those already recorded to-day
were seen.

Rogiera procera

Asplenium sp. ^{K.}
Lilium monadelphum
no 100

Gramineae

Lathyrus

On the top of the hill a sub-
alpine pond was found to fol-
lowing not record the many
Solanum and

Lithospermum canescens

Agrostis subsp.

= 7600 ft. 2350 m.

Altitude reading at summit of hill 7750 ft.

May 21, 1875

Yellow Creek Camp, Mont. Col.
Altitude reading at camp 9225 ft.
" " " at night 9100 ft.
= 6400 ft. = 1950 m.

I went today to Mill Creek Divide and followed on the down road to a point where the path, the road bending around to the eastward, and then proceeded down a canon to its junction with Mill Creek at the old mill. The canon down which I came I have called the south fork of Mill Creek. After proceeding about a mile down the canon below its fork I turned up the main or north fork to Mill Creek Divide, and returned to camp by the trail.

Altitude reading at Mill Creek
house on the way down 8450 ft.
= 5650 ft. = 1720 m.

On a without up at the
house was a hundred feet
higher in the upper limit

of the following plants

Juniperus glandulosa

ornatus

Juniperus virginiana

Abies concolor

The plant most abundant
at the base is Abies ^{viridis}
green

In the lower edge of the forest
on the north slope south of the
butte is

Amelanchier canadensis

The lower edge of the forest
is a very gradual slope

at a height of 5600 ft.
= 5800 ft. = 1770 m.

The north slopes and south slopes
on small hills have forest
strikingly different appearances. The
north slopes just below the butte
one are covered largely with
Artemesia tridentata; the south
slopes, principally with dark
green Abies ^{viridis} and Pinus taeda
glandulosa and the next east slope

are respectively gray and green. Another conspicuous feature of the landscape due to slope exposure is brought out in this region by looking southward and northward at sites situated at about the same elevation. In looking northward one sees only a few nearly bare hills; while southward the slopes may be half covered with them.

On the plateau at a reading of 8700 were

Juniperus californica utahensis

Artemesia tridentata

Umbellaria ^{viridis} ₁ and green, and on occasions

Purshia tridentata glandulosa

On a gentle southwest slope at a reading of 8600 = 5900 ft. = 1800 m.

Coleogyne ramosissima was abundant

Juniperus californica utahensis ₁ abundant,

Artemesia tridentata and

Umbellaria ^{viridis} ₁ and green, about 1000

At a reading of 8550, or

= 5750 ft. = 1750 m.

level plateaus, where there were no rocks (the soil seen before has been rocky), the main vegetation is

Eldana nevadensis
planans

Artemisia tridentata

Helianthus sauvagei 836

Yucca (brevifolia) arborescens beginis her.

The old mill is 2100' ft. be-
low camp. = 4300 ft. = 1310m.

The south fork of Mill Creek
has no water, but the north fork
is well supplied with small
springs.

Altitude reading at camp at night 7400.
= 6400 ft. = 1450^m

Following is a list of plants
seen to-day in addition to those col-
lected

Anisocoma tessellata abundant up from

Pinon

Oryzopsis bifida

Antennaria spinosa

 tridentata

Aster (cordifolius) mohavensis

Achelias sp.

Indosylvia neana Below pines

Baileys (8 oz.)

Bigelow totilla

Castilleia

Ceanothus

Chaenactis

Claytonia

Leucosyphus

Chrysanthemum anatomical

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 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778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 8010 8011 8012 8013 8014 8015 8016 8017 8018 8019 8020 8021 8022 8023 8024 8025 8026 8027 8028 8029 8030 8031 8032 8033 8034 8035 8036 8037 8038 8039 8040 8041 8042 8043 8044 8045 8046 8047 8048 8049 8050 8051 8052 8053 8054 8055 8056 8057 8058 8059 8060 8061 8062 8063 8064 8065 8066 8067 8068 8069 8070 8071 8072 8073 8074 8075 8076 8077 8078 8079 8080 8081 8082 8083 8084 8085 8086 8087 8088 8089 8090 8091 8092 8093 8094 8095 8096 8097 8098 8099 80100 80101 80102 80103 80104 80105 80106 80107 80108 80109 80110 80111 80112 80113 80114 80115 80116 80117 80118 80119 80120 80121 80122 80123 80124 80125 80126 80127 80128 80129 80130 80131 80132 80133 80134 80135 80136 80137 80138 80139 80140 80141 80142 80143 80144 80145 80146 80147 80148 80149 80150 80151 80152 80153 80154 80155 80156 80157 80158 80159 80160 80161 80162 80163 80164 80165 80166 80167 80168 80169 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1880-1881. The first year of the new century was a year of great change for the country. The Civil War had ended, and the nation was beginning to heal. The economy was in a state of flux, with many industries experiencing significant growth and others facing challenges. The political landscape was also changing, with new political parties emerging and existing ones consolidating. The year 1880-1881 was a time of great promise and opportunity for the country, as it looked towards the future with a sense of optimism and determination.

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viridis
nevadensis

Equisetum in 50

— — — minutiflora

Calystegia soldanella At about 4000 ft.,
Galilee

Gilia filiformis In upper lava
- multiceps In sub-pumiceous
inconspicua

Gomphrena hyssopoides

Wet places, same as 76

Goodenia oblonga

Goodenia subcordata

Goodenia callosa utahensis

Goodenia ornata about 1500 ft. elev.

Goodenia ornata

" same as 76

Lycium repandum

Lycium repandum

Malva same as 77, albicaulis

Malva no 77

Mesembryanthemum salsola

Mesembryanthemum salsola

Mesembryanthemum salsola

Onosma eriantha

Pectenozia eriantha 800

Paeonia, same as 195, parishii

Cyathium no 272 = Paeoniam vayi

Phacelia franckii

... " moniliformis

Paeonia moniliformis

Prunus fuscotomentosa no 301

Prunus oblonga glandulosa

Prunus, same as 623

Lathyrus no 225

... laevigatus

Salvia virginica

Scrophularia virginica

Ligustrum virginicum

Solidago, same as 195, Miller Co.

Abutilon scabratum, numerous

Smilax frondosa

Polygonum virginicum

Thlaspi virginicum

Urtica virginica In upper woods

Yucca (ndl.) arborescens

May 21, 1891.

Alt. 3200 ft. = 975 m. Camp, Saline Valley, Cal.

This morning I took a short ride to Jakes Spring for Willow on Camp, where I found additional *Artemesia* available.

We then began our trip to Millerton Ranch, down the south fork of Willow Cr. about 10 miles. The main stream is down this to Saline Valley, coming just when the town goes into the mountains. The main stream contains no thought to water though, while the south fork is dry.

In the afternoon I collected for my trip the evening about a mile.

The trees are as far up as
the upper portion in sub-living
and - part of the upper portion
abundant. *Pinus monophylla*

May 22, 1891

Wallow in Conf. Round Mts. Co.
I returned alone from Saline
Valley to the conf. this morn-
ing, by the same route taken
in going down.

The blank sun yesterday and
today.

Alt. 3200 to 6700 ft. = 915 m. to 1950 m.

Amelanchier terstellata

Amelanchier sp. no 833

Amelanchier sp. no 830, macradenia

Amelanchier sp. in Co.

new sp. with blue/purple
flowers

new sp. with blue/purple
flowers

Oxybaphus virginicus Trisetum barbatum

Amelanchier sp. in Co. no = 1

Amelanchier sp.

Viola sp.

Aster (Calathus) montanensis

Stellaria sp. no 782

casei 747

Epilobium canescens

Salvia sp.

Asplenium sp.

Border of wet soil

Bobbin panicea

Bigelowia pannulata aplophilia interior?

Brachillea with small leaves

— stratigalis

— longipila

Castilleja of sub-pine

of wet soil

Centaurium multitub

Centellaia oblonga

Cornu repandum

Charophyllum, no. 63, mariae albuna

—, no. 64, fremonti

Chenopodi

Chenopodium angustifolium

— mechiae

Chenopodium bidentatum

— notatum

— subulatum

Cleome pedunculata

Cleome lychnitis

Crinum

Coleosoma reniforme

Cucurbita, with 4-5 in. long

Dader montana

Delfinia

Distichlis spicata

Droba canja conorae

in in 310 - Capsella divaricata

Eleocharis chilensis polystachys

Ellisia chrysanthemoides

—, same in 322, microantha

Epilobium, no sp., condensatum

— condensatum botrysoides

Erigeron fruticosus

Gilia nevadensis

— vividis

Gilia gigantea

Equisetum, same in 300

Locusta annulipes

Lygodesmia with stiff, many, long, thin

Lygodesmia inflata

— annual bell-shaped

— few branched

— annual to frost-yellow

Lygodesmia no 838, ambiguum

— longistylis

Lygodesmia virginica

Euphorbia albomarginata

Erythraea lanata

Festuca microstachys

Fragaria Virginiana

Gallium no 531

Gilia filiformis

— latifolia

— multicaulis

— same as 782

— similar to multicaulis, but hair-fld.

Gaura bioglandulosa

Gaura ramosa

Symphytum triangulare

Veronica canina no 834

Veronica canina no 835 = Elymus sibiricus

Hordeum no 819 = Lotus americanus

Ion microcarpa no 832

Ion microcarpa

— microcarpa no 833

— uliginosa

Juniperus communis utahensis

Krynophyllum tuberosa

— spiculatum

— verticillatum

Polygonum racemosum

Laserpitium repandum

Leptidium frumentarium

Leucosiphon

Lipinius with small pink flowers
same as 764

" lanceolatum ornatum

Lycium andersonii

" cokeri, no. 226

smooth-leaved, In San Joaquin

Montinia, same as 745, albicaulis

Mimulus luteus (glauca)

same as 373

Monotropa uniflora

Myrsinella saleska

" saleskae, no. 81, ramosissimum

Nicotiana trifolia

Notholana longip

Oenothera lancea

" resupinata

" scoparia peruviana

" no. 620

" same as 757, dentata

" contorta hirsuta

Thunbergia baikonisstoloniferaApocynum rotundifoliumPlatycodon grandiflorusPrunus glauca ^{small}
leaves, blue, leaf with blue
whitish veinsPhacelia fraternalisleptophyllamoniliformispurple with purple leaveswhite flowers no 84Phoradendron boliviensePhragmites communisPolygonum perfoliatumPolygonumperfoliatumPolygonum no 82, rivale millegranaPolygonum perfoliatumPolygonum perfoliatumPolygonum perfoliatumno 82 = Forstiera parvifloraPolygonum perfoliatumPolygonum perfoliatumglandulosa

Ranunculus californicus

no 322

Sabbatia meekii = Erythraea exaltata

Salvia leskeana

Lamprolophus

longitubus

Salicornia angustifolia

Salvia columbariae

Scrophularia californica

Succowia longiloba

Polygonum moniliforme

Scrophularia canescens

Solanum santolinum

Solidago

Sonchus

Urtica, mult., muensana

no 322

Scrophularia minima

Thlaspi leptophyllum

Thlaspi luteum

Stachys

Stellaria monilifera

Stellaria

Sympetrum, no 325, longiflorus

Tetradymia spinosa

Thamnophis montana

Tricardia watsoni, no. 837

Typha

700

Yucca (Louribols) arborescens

Play in the Streets

Amoebe scabie

Mirabilis multiflora pubescens

Bouteloua microstachys as 975 = Festuca microstachys

Calanthus gracilis

Confide same as 794 = Aplopappus interior

no 532 = Aphelopappus monacanthus
no 539 = Crepis intermedia

= Deschampsia calycina

Altitude of S. M. Valley and 3200 ft. = 975 m.

lower limit of the ^{= 4400 ft. = 1340 m.} 4th stage

upper limit of $= 3600$ ft., Brown
Sands, Bawd

May 23, 1911

Kelso, Inyo County, Cal

I returned from Willow Cr. camp today by the same trail on which I went there.

Altitude near Willow Cr. Camp = 6400 ft. = 1950 m.

= 5650 ft. = 1720 m.

Mid Cotton Divide 7725

= 6300 ft. = 1920 m.

summit east of Yucca Valley 7750

= 5600 ft. = 1705 m.

spring 1 mile from camp 7700

= 5400 ft. = 1645 m.

Yucca Valley 7725

= 5950 ft. = 1815 m.

low pass, not above Lake 8100

= 7100 ft. = 2165 m.

crossing of Donner Mountain trail 8100

= 6700 ft. = 2040 m.

summit overlooking Lake

= 3650 ft. = 1115 m.

also

Where the trail ascends the west slope of Donner Mts. there is a small lateral valley between Yucca Valley and Lake 8100 m. which an interesting case of adaptation may be seen. It is especially interesting as it applies to Pinus monophylla which on the lower limit of growth

is a tree of varying altitude, but the species, Yucca arborescens, occurs above

the pinions. The following diagram shows the situation, the wind being a west wind from north to south. The distances were as follows



(Sunday) May 29, 1892.

Colo., Colo., Colo.

I received a letter to-day.

May 25, 1921.

Kelby, Long County, Neb.

I remained at Kelby today
finishing a catalogue of species
so far seen.

I bought a box for Beld.
today

May 26, 1891.

Ketchum, Idaho County, Idaho.

I remain in town today
writing on my report.

May 27, 19

Kebler, Gunn County, Col.

I went to dry with Beth to
the cabin with four horses. It
contains no water and is no
more than shallow. The following
plants were seen in the dry

Yucca (botrytis) neomexicana

Grindelia echinata

Liatris gigantea

Brodiaea monticola

Liatris longiligula

Carex sparganioides

Thlaspi arvense

Chrysanthemum leucanthemoides

Calochortus cyaneus

Calochortus peyriabeanus

Castilleja posticata

Epilobium angustifolium

Epilobium angustifolium

Epilobium angustifolium

Epilobium angustifolium

Epilobium angustifolium

Epilobium angustifolium

like leavessunflowerflowersthe flowers to be used
Kigelia pinnatasunflowerleaves like leavesSalvinia natanslike leavesLychnis coronariaMorus indicaMorus indicaMelilotus (broom-flower) indicaMorinda officinalisMorinda citrifoliaMorinda citrifoliaNicotiana bigorniglythaOenothera biennisOpuntia scandensOphiocarpus bilobatusPithecellobiumPithecellobium dulcePithecellobium dulce

Solanum aculeatissimum
Solanum colombianum
Solanum longipneum
Solanum scabrum, muroana
Solanum
Solanum
Solanum
Thelypodium multiciliatum & Stanleya elata = 1
Thelypodium multiciliatum

May 23, 1910

Ridgway, Colo.

I was forced down starting
for home today by the un-
used corners of my house book.
I therefore began determining spe-
cies that was collected since the
last sending to the Department.

May 29, 1891
Lake Tahoe County, Cal.
I remained at Lake to-day
sketching plants

May 30, 61

Keeler, Inyo County, Cal.

I determined plants to-day.

Late in the afternoon Mr.

Palmer party came in from Coso.
He consisted only of Mr. Field, Mr.
Palmer and Mr. Koch. They went
into camp in the sand grass
between Lake and the lake.

(Sunday) May 31, 1900
Koko, Tokyo, Japan, Cal.
Remained in Koko 5 days

June 1, 1881
Ridge, Tazewell County, Ill.
I wrote up notes and catalogues today.

June 2, 1891.
Hector, Yuma County, Cal.
Worked on notes and plants today

June 3, 1871
Lester Days County, Cal.
Worked on notes and plants
to-day.

June 4, 1883

Kelso, Inyo County, Cal.
Mr. Palmer and his party
went to Lone Pine today. Beth
and I accompanied them as
far as they went before lunch,
about 4 miles and from the
north end of Devil's Lake.

They took what is known as
the Lone road passing the
adobe house below Devil's
Lake and the marble quarry.

At the adobe house spring a
following flora was seen

Acacia albicans

Castilleja hirsutissima

Camassia gigantea

Coreopsis

Desmodium insigne

Polygonum monspeliacum

Yucca glauca

The following were in flower
but not in the locality of the

north end of the lake and along
the river.

Abronia annua 875

Wishbone carneosa

" confusa

" longa

Astragalus

B. litoria

Dolich polyrhiza

Elymus canescens trichoides

Epaphrus

Hippolyte annua

" smooth

Hordeum erisithales lychnis

Poa

Polygonum annuum

Oryzopsis (capillaris) membranacea

Ranunculus cymbalaria

Tilia

Succowia vermiculata

Sudetis laevigata rotundata

June 5, 1881
Keeler. I go to Cal.
Worked on plants and notes today

June 6, 1891
Rader, Inyo County, Cal.
Worked on plants and notes today.

(Sunday) June 9, 1891

Reed, Inyo County, Cal.

Beth, Mrs. Wilkinson, and I went to Lone Pine to-day, and took dinner at the camp at Harvey's ranch, about a half-mile north of the town.

In the afternoon Dr. Fisher, Palmer, Mrs. Wilkinson and I went to the country down to the nearest point of the earthquake wash and the back by way of the road on Mr. Harvey's farm. I collected several species of fish before sun.

We reached Reed on our return at about half past eight o'clock.

June 8, 1888.

Yreka, Siskiyou County, Cal.

I met this morning Mr. Frank Munsey a prospector who has lived several years among the Indians, mostly at Wild Rose. Paramount notes. He gave me much new information.

In the afternoon I went with him about five miles on the road to Crows Grade. The only plant we met was crowded from this place is for ever

Stroblium polycarpe

Jan 9 1900
Rader, Long C. Cal.
I spent today writing & of
journal.

June 14, 1891
Sutter, Yuba Co., Cal.
I spent to-day writing up my
journal.

June 14, 1889

Crystal Spring, Coe Mts., Jefferson Co.

Went to the Coe Mts. with Bill today
We took the road and then took
the Mineral road to the
top of the Coal and then took
a right hand road towards Coe.

Strata of the lower blue Coal 4000 ft. $\frac{13680 \text{ ft.} + 115 \text{ m.}}{2} = 4800 \text{ ft.} = 1465 \text{ m.}$
Bottom of first ravine
Brown Mts. first green
Brown Mts. first green $\frac{5350 \text{ ft.}}{2} = 4650 \text{ ft.} = 1415 \text{ m.}$
Brown Mts. first green $\frac{5650 \text{ m.}}{2} = 2825 \text{ m.}$

This is just a few feet higher than
the upper blue Coal.

Found Ammonia bilobata and Planaria

Planaria in a marsh, 6500 ft. $\frac{5500 \text{ ft.} + 1675 \text{ m.}}{2} = 5800 \text{ ft.} = 1765 \text{ m.}$
Planaria bilobata abundant 6500

The following plants were taken today
after walking the marsh a mile in the
lower blue Coal. Lower Blue Coal.

Abronia (collected at 6500)

Acromyrtophyllum abramsii

Amomum tessellata

Amomum sp.

Asperula folia sp. (white) and

Agave lepida

Artemisia spinescens

— tridentata

Artemesia woodii

Batis (torifera) mohavensis

Calochortus

Carex varia

— canescens

— lyngbyoides

— phylloneura

— polystachys

— sp. (sp. of Carex) paniculata

Calochortus sub-frutescens

Camassia

Chionophorus bonariensis

— virginicus

— virginicus

Cleome polycarpa

Cleome canescens =

Cleomella polycarpa

Emilia frutescens

Epilobium viride

Ephedra nevadensis

Eriogonum bellidifolium

Eriogonum (yellow)

" " 2000-31

Eriogonum (flat)

flexible

echinoid

surface

2000-31

Eriogonum (single)

Euphorbia albovarginata

Eurotia lanata

Francoa dumosa

Gilia (scosa)

" hifolia

" matthewii

" setosa punctata

" terriflora

" inconspicua

Grayia polygaloides

Gutierrezia

Helianthus (like Syndromis)

Hodgsonia nodosa = Elymus sitacium

Hymenoclea villosa

Kochia, (?) no 905, americana

Polygonum talyma

— circumscissa

Polygonum californicum

Ligia

Lepidium fructuatum

— lasiocarpum

Lupinus same as 877

Lycium californicum

— copernicium

Lycodonomorphus angustior

Mimulus spinosus

Mirabilis

Mirabilis californica

— multiflora pubescens

Nicotiana trigonophylloides

Oenothera briophila

— asperita

— canescens

— scapoidea

— scapoidea purpurea

Oenothera bacillaris

Obionea echinocarpa... nubilamembranaceaDrymocallis (cuspisata) (into the ground)Oxytheca perfoliataPeltaria lineataPeltocarya nitidaPentstemon variegatus 922)PetalonyxPanacium variegatum 115, parishiiPedicularis frondosa... ramosissimaPersicaria trifolia glandulosaSalicaria racemosaSalvia columbariaeSisymbrium canescensSphaeralcea, west. murraanaStanleya binotata... elataStephanomeriaStipaTetragonia variegata... chinensisThlaspium variegatum 922 = Caulanthus pilosusTriodis = Triodia fulchella, ... (acutifolia) arborescens

first spring, Coon mts., Inyo Co., Cal.

Altitude reading, camp 5100 ft. 7160 = 6000 ft. = 1830 m.
= 6200 ft. = 1890 m.

I returned up to an altitude of 7450 (76+11)

early above the spring in the forenoon.

Altitude reading at camp, 11300 ft., 7300
= 6000 ft. = 1830 m.

In the afternoon I went to the first river
and went southward for the spring, about 5 miles
and ascended this to an altitude of 7670 ft.
This was somewhat above the line of low
pinon on north slopes, but all the low
line had been cut off for firewood.

Altitude reading at camp 7400 (730+11)
= 6000 ft. = 1830 m.

Following on the flats collected a
collection of small plants growing
on other shaded ridges.

Jan 13, 1891.

Redwood County, California.

We left Capital Spring this morning and took the road to Narrows, and from there proceeded by the stage road to Keween.

Altitude reading, at 6 A.M. 1300 = 6000 ft. = 1830 m.

... crossing of wash from Capital Spring
and first road.

Upper Lava mexicana

Lower Yucca ^{arborescens} lanceolata

Narrows

Upper Lava mexicana

Lower Lava ^{volcanica} retusa (from 6300 ft. to 6000 ft.)

Second Narrows - Keween

Stone Coral

Summit of Cutout

Keween

6970 = 5700 ft. = 1735 m.

= 5000 ft. = 1525 m.

6230 8:20 A.M.

= 4200 ft. = 1280 m.

5350 6:25 A.M.

= 4840 ft. = 1475 m.

5900 9:15 A.M.

= 5100 ft. = 1550 m.

5300 ft. = 1615 m.

6300 10:30 A.M.

= 4550 ft. = 1385 m.

5250 11:55 A.M.

= 4450 ft. = 1355 m.

5100 3:20 P.M.

= 3622 ft. = 1105 m.

136

261

Jan 19, 1891

138

139

June 2 192

140

141

Jan 16, 1891

142

143

Jan 18, 1881

144

145

June 18, 1891

June 19, 1896.
Walnut Ranch in Sonoma Co., Cal.

We left Los Gatos this morning at about 7 a. m. clock, Mr. Warren, Mr. Palmer, Beth and I with Mr. Buff for Lodi. Beth and I rode in the car after Mr.

We went down the west side of Dume Lake half of the region we saw there is at some points about 1000 feet above the level of the lake. The region has an upper lava but this plant is wanting and in the situation of some of the lavas the first we see are very common, and from that place southward it grows about the same in width in greater abundance. It is now in fruit and the vines are all over the plant a gay specimen but which is not very recognizable at a distance from the thorny brush.

The most abundant shrub is

and Fraxinus densa
Populus canescens with, in some
 parts of the way, Aster laticiliata
 while the following occur frequently
Lysimachia coerulea Salix prunifolia

Prunus canescens
Prunus sparsa

Aplopappus affinis

Composite, seen on ~~the~~ ^{factus} = Aplopappus mon-

On the sand and rocky slopes
 in sandy ground Populus
 and Fraxinus grisea Salix
 and other species

In the areas in the valley and
 especially about the mouth of the
 Laramie and the lake Big ge-
orge and B. longus is abun-

The country has been much
 denuded of topsoil so that
 only all the annual vegetation
 is gone

Flowering plants were also

Fassiniis coriaceaGilia flavescens... subthlaspioidesGlycyrrhizaGrayia polygaloidesMicroseris canescensTrifolium

Same as 900 = Lotus oblongifolius
(Same plant Small)
Description (pp 11)

Trifoliate
Trifoliate

Glauca
... subcordata

Peltate (pp)

Trifoliate subcordata

Trifoliate subcordata

Rosa

... laevigata

... longistylis

... pubescens

... pubescens

... pubescens

... pubescens (Ceratoides)

Lemna potatorum

Lycopodium canescens

Sium = Berula angustifolia

Spirogyra

Sporobolus avocetorum

Stuckenia flexuosa (rich banks)

Irida affinis

— some in the

Tribulus

June 22, 1911

About six miles south of Little Lake, Inyo County, Cal.

We left Walker Ranch this morning at half past six and followed the road southward passing Chilko, Hayes, Meadow, Goat Park and Little Lake; we made a day camp at the first.

About a mile south of Little Lake the road being wagon track, we I marked it with two of iron and being as we did I will be added.

The country toward was ~~mostly~~ ^{mostly} flat forest over yesterday, as far as ~~that~~ ^{the} flat. Here the Sierra begins to make ground about the lower borders of the valley. The ground from is very hilly and high and there is little else the Sierra comes among them.

Walker Ranch	6:30	4630	$= 3700 \text{ ft.} = 1130 \text{ m.}$
at camp this morning	(7:15)	4700	$= 3800 = 1160 \text{ m.}$
<u>arborescens</u>			
<u>Sierra</u> <u>begin</u>			
Meadow	(10:15)	4725	$= 3800 = 1160 \text{ m.}$
Rose Spring	(11:20)	4550	$= 3545 = 1080 \text{ m.}$
Tally north of Little Donahue	(11:00)	4470	$= 3450 = 1050 \text{ m.}$
Spring by road just below	(11:00)	4325	$= 3300 = 1050 \text{ m.}$

160

161

162

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Sunday June 21, 1881

Cambria Creek Kern County, Cal.

We left camp at six o'clock this morning, proceeding southward along the stage route till opposite Nelson Pass. We then took the road to the pass and reached the place at about seven o'clock.

The lowest reading on the stage road was 3300 ft and at this altitude and for a few hundred feet above the main vegetation was Larrea mexicana, Franseria dumosa, and Dalea (annual).

The following altitudes were taken this morning camp (6100) = 2350 ft. = 715 m.

Indian Wells (11:00) = 2606 ft. = 795 m.

Flower and Mule Pass = 3050 ft. = 930 m.

arborescens = 3400 ft. = 1055 m.

arborescens = 3750 = 1145 m.

arborescens = 3800 = 1160 m.

by mule = 4000 ft. = 1220 m.

at orange ranch = 4200 ft. = 1280 m.

on hill top above = 4900 ft. = 1490 m.

end of low and short

spur on south side (6-50)

at end of a long low

ca arborescens

but afterward goes lower

= 4900 = 1115 m.
(6-50)

= 3904 = 1190 m.
(6-50)

leaves

Dryas alba
C. 60' from

— 100

— 100

Adonis amurensis

Scroph. heterophylla

Erysimum

— viridis

in the sun — Bluff

Dryas alba

— 100

— 100

— 100

Adonis amurensis

Liparia alba

pedunculata

Dryas alba

dark green

Calystegia

Dryas alba

Scroph. heterophylla

Scroph. heterophylla

= Lotus procumbens

— 100

— 100

in sun. Brackish Beach

Juniperus virginianaabietin (gray - not abietic acid)Juniperus sabinaabietin (Baptista 1946)abietin agnus-castus (first ever seen)Juniperus communis ornatusLycopodium andicolaLycopodiumLycopodium willdenowiiLycopodium no. 1015MicrolepidiumMicrolepidium fraserianumMyrsinellaMyrsinellaOpposites (inflorescences) membranaceaPentstemon (shrub) spicatusPolygonumPolygonum avicinumPolygonum multiflorumPolygonum sibiricumPolygonum jeffreyiPolygonum

Polygonum perfoliatum
Wet soil (bottom of the valley)

Prunus pyrulata

Prunus pyrulata

Prunus pyrulata glandulosa

Prunus pyrulata

Rosa

Rhus virginiana

Salix losiantha

Salix losiantha

Polygonum virginianum

Polygonum virginianum

Sambucus

Spiraea prae- (wing on east side of stream)

Spiraea angustifolia

Spiraea = Berula angustifolia

Spiraea

Polygonum virginianum

Polygonum virginianum

Polygonum

Polygonum (or foli) arborescens

On sand floor between Salix and
the larch is - Cyparis larch
here or with Salix larch

long. The altitude is too great for the larch
but a few small shrub characters
of it do appear on the west side of the
bald.

The most conspicuous feature is a
spruce of the eastern or white or
black variety of Pinus sabiniana

Pinus californica is a large tree
but is not appearing on the west
slope of the mountain is Pinus jeffreyi

I went to the Pass on
and a long and wild walk
with a lot of the Sierra in the
forested area in running along the
slopes leading to the mountain on
the west slope of the pass.

June 22, 1877

Road back west of Penrose, San S. Col.

We left Durango River this morning following the main road downward until we reached the bottom of the valley on the south Fork of the San Juan. We followed down the bank of the river until we reached the falls and then turned upstream up the North Fork to the river.

The road continues to the river west along the south Fork. The vegetation is not permanently retained along the side of the road.

Artemesia is quite abundant and reaches to a valley bottom. The pine trees are associated with the South Fork, and rarely with the northern vegetation in the best association.

The valley of the South Fork of the San Juan is a broad basin bottom. It was here that the first camp was made, and the first camp was made.

The valley of the South Fork of the San Juan is a broad basin bottom.

in the mount

Lamia caerulea

Amata lachesis

Atypia montifolia

Hypho

Lyca

Palpia gigantea

The following are the species
that have not been met with

Acraephia chlorophala

Drassia biguttata

Panthea tristis glandulosa

Sala gigantea

The following species have not
been mentioned have ~~been~~ the best
evidence

Ostearia tristis

Opilia caerulea

Pseudotis caerulea pilosa

Scaphia forsteri

Thilia modesta

Hyperoleia caerulea

Lyca andromedae

Ophiodes schinovi

Prismus andersoni

Facultate

Succulent shrub = Aplopappus interior

Trochyna spinosa

Concord

Baphorion longum

vidospar

ornatus

John L. Ladd

cuneatus

divorced

... ~~and~~ life

2. *Leucostethus* *leucostethus* *leucostethus* *leucostethus*

Pinus sabiniana

Coris occidentalis

Eriogonum glabrum

Mimulus glutinosus

Dioscorea villosa praecon

Rhamnus californica

Psacca whipplei

Alnus Lombifolia

The five plants that we know not to go over all belong to a belt not represented on the west slope so that the entire drift from practically goes over to the left bank of the Kern River at the junction with Cawbra Creek. From this point down the river there is little shrubbery, the land being all cultivated and the hill-slopes covered ^{mainly} with Pinus sabiniana, Pinus monilifera and the two Ceanothus; Ceanothus cuneatus, Ceanothus diversifolius

On the hill-slopes south of Kernville, Pinus sabiniana is abundant.

Telling on the plants seen today in addition to those collected.

Alnus acerifolia (along Kern River)

Alnus Lombifolia (along Kern River)

Prunus virginiana alba

Quercus californica

Artemesia lispia

Artemesia tridentata (to the foot of slope)

Psacca whipplei

Atypus canescens (in the green, sprang)

Andibebe meana

Azolla caroliniana (bottom of rock fol.)

Brylaria douglasii

Calostoma (bottom of brush fol.)

Capella

Castilleja

Castilleja, no 1036, cuneatus

— no 1032, divaricatus

Atypus like a sinuosa)

Chionophorus no 1033

Clethra (bottom of rock fol.)

Cirsium no 1035

Coleus

Cuculus fol. is

spotted

Cuscuta

Drimia multicaulis

Marshallia no 1036

Oligoneurus longulus

Onoclea fol. var.

Phlox no 1037

1037 in between — same in the

long grass (bottom of rock fol.)

Eriogonum subulatum no 1631

(similar to angustatum var st. lind.)

fractuation (down to the rock)

Eriogonum cicutarium

Euphorbia albovaginata

" perfoliata

Fragaria no

Fragaria californica

Gilia oblonga

Geum canescens

Hedysarum glaucum

Hymenoxys calycina (in sun on hill)

Juniperus virginiana (table slopes)

Juniperus conformis (down to the rock from

Leavena

Liatris ido lanceolata

Liatris ornata (Wells from the River)

Liatris reticulata

" coerulea

Maurandya calycaris

Melilotus indicus (on fire bank) (and fire bank)

Mirabilis lutea

" glauca

Nicotiana

Antennaria

Urtica lutea

edentata

Castilleja (slightly, of leaves)

Plumbago flavescens (in stems) macrophyllum

Polygonum sibiricum

Polygonum multijugum

Phalaris

Plantago fastigiata

Polygonum perfoliatum

Luzula oligophylla fastigiata

Ranunculus acquaticus

Cyperus rotundus rotundus

Ranunculus acquaticus
" hygrophilus

Salix lasiolepis

Salix acuminata

Scirpus lanceolatus lanceolatus

Scirpus coloratus

Lemna longirostris

Lemna

Utricularia

Lemna

Phragmites bl-dens

Symplocos airiodes

Hamelia panamensis

Pithecellobium canescens

spinosum

Ficus —

Ficus latifolia —

Neurolepis leucostachys

Acacia (Cavendish) arboreascens

Acacia totta (Linn. with fol.)

Acacia hololeuca

Low shrub = Aphlopappus interior

The shrubs in both the stream and
creek side a few closely grouped clots
of bushes.

Small village on bank

Pass 190 A.M.

= 3904 ft. = 1190 m.

arboreascens

= 2900 ft. = 885 m.

Quercus viscosa

= 2600 ft. = 775 m.

and 2000 ft.

Sierra, Kern County, Cal

Up to Kernville soon after noon long, along a low and very arid ridge and the rest of the way to Crescent, the long and gradual course of the fork of the Kern and young Kern and over a part of the Kern at Middle Basin, and another ridge about a mile long. The road was about a mile long and the road was narrow and the number of the young.

The camp is built on a flat in a low and the first series of ridges the first the second ridge and the last ridge of the young. The town is

Pinus sabiniana

Pinus monilifera

Pinus californica

Pinus monilifera douglasii

Pinus monilifera cuneatus

Pinus monilifera divaricatus

Pinus elliottii

and life of a tree

Cercocarpus pacificus

Following is a list of the species in

Abies concolor

Amelanchier

Amelanchier on Pinus coulteri

Argemone hispida

Artemesia tridentata

Castilleja, no 1072, eriocarpa

Cedrus atlantica (Benth) in Pinus

Cephaelis angustifolia

Cotyledon

Coumara same as 1026 cuneatus

—, 1032, divaricatus

Cercocarpus pacificus no 103

Cladonia lutea (Bartsch)

— (not albus)

Chionanthus same as 1023

— no 1025

Cirsium same as 1025

Coldenia (only 1 of the two)

Coumara pacifica

Cuscuta

Cytisus variolosus (Wall) Linn. var. variolosus

Datura meteloides
Dioclea oligantha
Psetchia masteria
Emenanthe pedatiflora no 1156
Ericia putescens
Ephedra viridis (on the sand)
Eriocarpus setiger
Erodium glutinosum
Eryngium nudum
 " " no 1155
Fraxinus
Gordonia cuthbertii
Grewia abutiloides (orange-fl)

Iochadys same as 1155
Euphorbia albovirgata
Franseria hirsutissima
Frumentaria californica (on the side)
Gilia no 1099
 " " 1156

Syngonanthus glaucus
Velutina canescens
Veronica glauca
Hordeum
Luzula (Hedel.)

Juniperus bifolia (North Fork Kern River)

J. communis

Juniperus californica

Krynitzkia no 1057

—, 1058, intermedia

Lepidium sativum agavatum

Lupinus no 1041 = Pearcea californica

Maianthemum canadense

Antennaria cotula

Melilotus (laxiflora) indica

Mimulus glutinosus

— no 1038

— 1039

Name same as 1023 = Lemmonia californica

Maianthemum canadense (Kern River)

Maianthemum

Oenothera glandulosa

Opuntia hispida

Pectogyne no 1055, setosa

Pentstemon

Phoradendron temucum villosum

Pinus sabiniana

Polygonum aristatum

Populus

All the ridges to-day as follows

Renoville about noon (3650) = 2550 ft. = 770 m.

= 3750 ft. = 1145 m.

Summit of spur of Sierras (4750) 3 P.M.

Tally of total 6 P.M. 1100 = 3100 ft. = 945 m.

Hospital 1100 = 3150 ft. = 960 m.

Polygonum moniliforme

Prunus fasciculata (on the divide)

Acerus wislizeni fruit

— Acacia douglasii

Rhamnus californica

Rhus diversiloba

Ribes no 162, Leptanthum

Rosa (New Eng.)

Urtica

Labbatia (New Eng.) = Erythraea

Salix lasiandra

Salix columbaria

Scirpus

Senecio douglasii

Lilium auratum no 162

Polygonum caeruleum (on the divide)

Empetrum

Urtica lilacina

Xanthium discolor

Yucca whipplei

Shrub-like shrub = Aflopappus interior

Bidens coulteri - most of the bush from
valley west of me Yucca arborescens

June 24, 1919

Ranch 1 miles east of Caliente, San Luis Obispo County, Calif., on the Caliente-Tehachapi road.

We left Soledad this morning crossing a divide into Walker's Basin, then another divide into Caliente Valley and from Caliente eastward on the Tehachapi road to the present camp.

The whole country belongs to the anterior flora.

Following is a list of the plants seen

Desmodium californicum

Desmodium sessilifolium

Desmodium glabellum

Desmodium velutinum

Desmodium glabellum

Desmodium on the eastern

Desmodium sessilifolium

Acacia ludoviciana (L.) Gray

Acacia ludoviciana

Psoralea argentea (Coryn. Billy)

Psoralea argentea

Psoralea argentea

Psoralea argentea

Psoralea argentea (L.) Gray (var. sparsa)

Bidens angustifoliaBittern squash 1129 = Chenopodium californicum

Calochortus no 1127

spatula

Ceanothus var 1128 cuneatus— 1122, divaricatusCeanothus paniculatus (Lindley) Miller

Chrysanthemum 1126

— 1155

Cirsium no 1129, californicum

— 1155

Cotyledon smalliiCucurbita pepoCuscutaDatura meteloidesDymna condensata totowaEmmenopteryx fructuosaEremocarpus setigerusErodium botrysEryngium angulosum

fasciculatum

— same as 1128

Erythronium revolutum

Engelmannia reflexa

Eriogonum same no 1115

Lupinus ocellata no 1081

aberrant

Franseria californica (Ward) no 1082

Ward no 1082

1082

Bodkin no 1099

Hordeum intestinale

Nosodachis glaber = Lotus glaber

Juniperus virginiana

Juniperus californica

Populus —

Populus (Ward) no 1083

Liquidambar opposita

leptos

Monotropa uniflora

Melilotus (Goriffa) indica

Mitchella no 1085 dispersa

Mitchella glauca

no 1085

Mitchella multidens (Lindl) Bowd of China

Hema canescens 1022 = Lemmonia californica

Nudotinus foliolus

Nicotiana

Douglasia no. 1078 microantha

— 1082 contorta

Oenothera basilisca (Caliente Valley)

Pactoanga pancilioides no. 1089

Pentstemon no. 1090-

1096

Phacelia (very large or naked)

Phacelia flavescens californica

Pinus sabiniana

— jeffreyi

Poa annua

Polygonum virginicum

Polygonum multifidum

Populus

Prunus discolor

Pterostegia longimana (Cerro Valley)

Quercus virginiana petraea

— (canescens) douglasii

— no. 1103

Ranunculus repens (Wichita Mts.)

Rhamnus alpina

Altitude readings today were as follows

Hamlin 6 a.m.	(4:50) = 3150 ft. = 950 m.
<u>Cercocarpus</u> ^{parvifolius}	(4:50) = 3600 ft. = 1100 m.
Woods west of Walker Basin	(5:20) = 4100 ft. = 1250 m.
Walker Basin	11:20 (5:20) = 3100 ft. = 940 m.
Summit south of Mt. B.	— = 3850 ft. = 1175 m.
Sandia wood	2:30 (3:40) = 2300 ft. = 760 m.
Coliente	5:00 (5:45) = 1290 ft. = 395 m.

Rhamnus crocea (Coliente Valley, both slopes)

Rhus (aromatica) trilobata

Rhus divaricata

Ribes menziesii no 1377

— same as 1062, leptanthum

Rosa

Salix hastata

... linifolia

Sambucus

Sorbus colombiana

Spiraea rubetorum (Coliente Valley)

Spiraea argentea

Spiraea sibirica

Solidago

Tephroseris (Walker Basin)

Veronica holboelliae

Verbena spicata

Yucca whipplei (abundant in Coliente Valley)

Aplopappus interior (of Walker Basin)

Aplopappus canescens (abundant in Coliente Valley)

Phacelia menziesii (Coliente Valley)

Asclepias methanoides

Celosia

Nycteola menziesii = Balsamorhiza deltoides

June 25, 1891

Canyon, Teeshope Pass, Kern County, Cal.

We left early this morning and followed the Cabazon-Teeshope road to the first passing over Teeshope summit, through Teeshope Valley and the town of Teeshope, to the point

at passing west wind blow house to
Teeshope Valley, and through the pass.

Following is a list of plants seen to day.

Achillea millefolium

Agave californica (to Teeshope summit)

Anemone alba

Asclepias speciosa

Bartsia rotunda

Calochortus versicolor

Carex aristata

Carex virginica

Castilleja, no. 112, oocarpus

Cleome speciosa

Cyclamen

Drymocallis drymocarpa

Blitum canescens 113 = Chenopodium californicum [cum]

Brassica polystachys anaedica

Calochortus (Teeshope Valley)

Epifalla

Carex

Thunbergia (various, though at various)

Chrysanthemum

Chrysanthemum

Veronica var. canescens 1825

Carex var. IRK

Carex varia (Tehachapi Lake)

Dactylis glomerata

Dactylis glomerata (Tehachapi Lake, east to Conemaugh)

Eleocharis varia 1823, palustris

Elymus condensatus triticoides (grassy meadow
downhill east end of Tehachapi Valley)

Epilobium canescens

Eriogonum strigosum

Erodium glabrum (var. Thunbergii)

Erodium rotundifolium

Erythrina varia 1825

Euphorbia oblongata

Fouquiera barberae

Fouquiera californica (west of Tehachapi Valley)

Gilia varia 1823

Gilia Thunbergii

Gilia Thunbergii (abundant in Tehachapi)

Plantago curvilinearis (var. Tehachapi Leib.)

Elymus citimus
var. no 1121 (abundant in Tehachapi Valley)

Washia glabra (west of Tehachapi Valley) = Lotus glaber

Yucca maritima

Juniperus californica (near Canyon)

Lotus res no 1126

Lytis franctii

ido~~hastatum~~ squamatum (west of Tehachapi Valley)

Lycium cooperi

Maianthemum canadense

Melilotus (hirsutus) indicus (Tehachapi Valley)

Mimulus glutinosus (west of Tehachapi Valley)

littera (west end of Tehachapi Valley)

Microseris californica (var. (1 mile west of Canyon)

Nototrichium californicum (west end of Tehachapi Valley)

Nicotiana

Oenothera benthamii

Peritoma var varia no 1126 (Tehachapi Valley)

Phacelia (large rocks) (west of Tehachapi Valley)

Phacelia hirsutissima (west Tehachapi Valley)

Phacelia retusa (west end of Tehachapi Valley)

Phacelia sabiniana (now here all around Tehachapi)

Phacelia giffreyi? (Tehachapi Mountain)

Platanus racemosa (to Tehachapi Valley)

Polygonum aviculare

Polygonum monspeliacum

Populus (west of Tchoshofa Valley)

Quercus wislizenii fimbriata

— lobata (from west of, into, Tchoshofa Valley)

— (coerulea) douglasii

Ranunculus

leptanthum

Ribes same as 202 (west of Tchoshofa Valley)

Rosa

Rumex virgatus

— no 1117

Rubus maritima (Tchoshofa Lake)

Salix lasiandra

Sambucus (west of Tchoshofa Valley)

Sophora canescens orientalis (Tchoshofa Lake)

— canescens Tchoshofa Lake

Sisymbrium canescens (Tchoshofa Valley)

Sium (west of Tchoshofa Valley)

Solanum spicatum (1 mile west of Canyon)

Sonchus east end of Tchoshofa Valley

Urtica holostoma

Urtica, same as 102, praeemorsa

Urtica whipplei (west of Tchoshofa Valley)

Carex-like plant = Aphloappus interior

A tree of Juniperus lobata in the western foot of Tabishof Valley measured 19 d in circumference at seven feet above the ground.

The floor of Tabishof Valley is an area for one, the foot hills about the valley being only at a distance being covered with

Pinus sabiniana and Pinus jeffreyi - occupying the higher points. The valley bottom (about 6800 mds) is all in the cultivation, but appears to have been a shrubland area characterized by the foot by banks of the river. No shrubs appear until one enters the canyon which connects the valley with the Moyer River at the eastern entrance. The foot-hill plants that appear on the 1/2 mile west of Canyon, as follows:

Artemesia canescens

Eleocharis multicaulis

Justicia gibba

Lepturus virginicus

Thlaspi arvense

Thlaspi arvense

Thlaspi arvense

Thlaspi arvense

Scirpus arvensis = Alopappus interior

In the eastern part of

is a shallow salt lake about 16 miles in length, which dries in summer leaving large deposits of salt ~~that~~ ^{that} are used commercially. About the lake are a number of interesting saline plants as may be seen by the notes and the catalogue for today. Halopeplis salicornia was not seen there.

(Calif.) mojavensis

Bryonia laciniosa var perfoliata

Long petioles with long white hairs

petioles with white hairs

Aplopappus agrestis (L.)

L long (L.)

Mirabilis californica (L.)

O lance

— lance (L.)

Oxybaphus (L.) membranacea

Dactyloctenium laticulatum (L.)

Phacelia lanceolata (L.)

Prunus arborescens (L.)

Forestiera parvifolia (L.)

— lance (L.)

comes down to the bottom of the valley.

In the north slope a occasional
small patches of Pinus monophylla
are to be found, but the
dominant tree

Pinus arborescens occurs isolated as
for as lower down, and there
they are mixed with Abies
simply, nearly to the bottom of the
valley, following slopes on both
sides, and are scattered in the
valley bottom. The smaller trees
and shrubs are Artemesia
in the bottom of the valley
which grows in the
sun, while the Artemesia
which grows in the
shaded Pinus arborescens are the following:

Following is a list of plants
seen but often.

Quercus californica
is the only tree to be found

Yucca (Leptocephala) mohavensis

Flowers

Leaves

Root system

Calyx

Stem

Pods

Flowers

Leaves

Root system

Stem

Pods

Flowers

Leaves

Root system

Stem

Pods

Flowers

Leaves

Root system

Stem

Pods

Taxodium spicatum

Populus canescens

Salix schmidtii

Dryopteris (cristata) membranacea

Corylus lutea

Prunus virginiana

Liquidambar styraciflua

Salix tristis

Ulmus

Platanus acerifolia

Populus canescens

Populus canescens

Populus canescens

Populus canescens

Trees for driftwood

Bring into a sheltered bay to be

and the water to where boats

can stand on bottom vegetation

then wait till the tide is able to

dry out and then bring the

logs chip away while water

is falling being on the ^{up} of the

surf) no large rocks present

From the village they went
up the valley to the south
bank of a small stream
which flows down the south
side of Lake Baikal. On the
left bank of the valley and
across the stream the snow
was quite soft. The snow
was about 10 cm. thick
and was melting, the sun was
shining brightly.

arborescens
(L.)

In the middle of the valley
there was a small
stream, the beginning of
which was a small
pool of water. The water
was very clear and
the bottom of the pool
was covered with
a thin layer of snow.

binianaea-sabinianag. erborosens

— palm. all. in the
— in groups
— on hill tops. They
—

plant in groups
Antidesma glaucescens

Guarea multiflora (along with the
Guarea

Urtica polygonoides

— Urtica (at middle of way)

Begonia glabra

— Urtica

— Urtica

Reseda sphaerocarpa (at Willow Spring ^{Common} ~~Common~~)

Eleocharis (Willow Spring)

Elymus canescens ~~triticoides~~ (Amidst the willows, abundant)

Urtica dioica (in the groves and eastward)

Eryngium alpinum (very abundant west of the groves)

Eryngium pectinatum

or Eryngium

Erioneuron pilosum (abundant throughout)

Lupinus albus ~~angustifolius~~

Lupinus (groves and eastward)

Lupinus polyphyllus (east of groves)

Malva parviflora (abundant west of the groves)

Malva parviflora (Willow Spring)

Malva parviflora (very abundant west of the groves)

Malva parviflora ?

Malva parviflora (Willow Spring)

Malva parviflora (Willow Spring ^{Common} ~~Common~~)

Malva parviflora (abundant west of the groves)

Malva parviflora (abundant west of the groves)

Malva parviflora (east of the groves)

Malva parviflora

Malva parviflora (Willow Spring)

Malva parviflora (?)

Malva parviflora (?)

Thermopsis vulgaris (west of the passes)

Mimulus luteus (Mallow Sp. & Crane Lake)

Mirabilis multiflora pubescens (abundant in

Nasturtium officinale (Mallow Sp. & Taylor Lake)

Wasteland

Oenothera californica (more frequent west of the ^(grasses))

Oxybaphus membranaceus (abundant) as far west as Big ^(grasses)

Pentstemon (in the hills, shrubby, & flowers white & ^(grasses))

Pinus sabiniana (pines - in soil)

Polygonum monspeliacum (very abundant west of)

Polygonum perfoliatum (Crane Lake)

other plants none

Forestiera parvifolia

1. Thlaspi albidum (Mallow Sp.)

2. Rhus tristis (in the hills in the passes)

3. Convolvulus

some on hills

4. Urtica dioica (west of the passes)

5. Urtica dioica (Mallow Sp.)

6. Urtica dioica (Mallow Sp.)

7. Urtica dioica

8. Sonchus asper (Mallow Sp.)

9. Malva parviflora (a grass and others)

10. Tulipa (in the hills) (grasses scattered)

Infundibulium (Miller Spring)

guaco (*brachyloba*) *arborescens*

— *hippocratei* (var. Liebm. from books)

Yucca *polystachys* (Miller Sp. + Cane Lake)

July 25, 1911

Fat Tiger, Kern County, California

We left our auto early and went
to Tiger a short time, having dinner
there and taking dinner.

We camped in the old park ground under
and old manzanita oak.

July 26, 1911

Fat Tiger, Kern County, California

I went out to the lake early this morning
and a slightly flat.

July 27, 1911

Fat Tiger, Kern County, California

I visited a camp today and
noted.

July 28, 1911

Fat Tiger, Kern County, California

I went to Lower Lake today and
walked completely around it. Lake was found
to collect. The lake found water in
abundance. It is about a mile long and one

third on side, extending north and south and lying on an elbow of the Cutcha de los Lagos. The banks are grassy slopes with a few live oak *(Quercus lobata)* and cottonwood *Populus tremuloides* at the north end in a small ~~shallow~~ *Lake levantado* ~~extinct~~ marsh and at the southern end a low natural meadow mainly of old *yellow* *Acacia constricta* *intertwined*.

The shallow margin of the lake is covered with *Ruppia* ~~grass~~ and some mud-works only soil on the eastern side of the lake a small *lily* (no. 1176) was found. In the meadow at the south of the lake was collected ~~few~~ *grass*. The other plants are very common.

July 29, 1891

Tot Tyan, Kern County, California

I collected today on the hillsides south west of the fort, about the mouth of Johnson's Creek. The hillsides are covered mainly by oak *(Quercus* *caroliniana* *douglasii*), *Quercus* *intermedia*, *Quercus* *californica*, poison ivy (*Urtica* *divaricata*), and bear some juniper (*Juniperus* *californica*), live oak *(Quercus* *chrysolepis*), *Acacia* *farnesiana*, and

Pseudoeuryce marianae. This is about the lower limit of the plants seen in the locality. The species are very scarce.

July 2, 1891.

Fort Tejon, Kern County, California

I rained - and very silly
and writing notes

Independence Day, July 4, 1891

Fort Tejon, Kern County, Calif.

Wrote a Mission and above the line
for publication.

(Sunday) July 5, 1891

Fort Tejon, Kern County, Calif.

I rained in such to day.

July 6, 1891

Fort Tejon, Kern County, California

I went collecting to day at Johnson Creek
in - mountains just back from off Johnson
Creek. I found a lot of stone in the creek
Prairie - lithia here about and

Aesculus californica

but Quercus disappears, while the most abundant oak is Quercus chrysolepis.

July 1, 1891.

Fort Tejon, Kern County, Cal.

I went today up the Kern River, which enters California de la Sierra from the south about a mile east of Fort Tejon, and followed it to its head. I then ascended the mountain slopes to the westward where, on a north-sloping draw, I found Aesculus canadensis. I then left off the steep slope and went along the north-slope and pieces to the summit of the peak. From the peak we took a walk down the side southwardly, to the Mountain meadows, Castle Lake and the slope valley extending westwardly, northward and west to the Mono Plateau meadows.

On the meadows along the north side of the valley a dense growth of Aesculus vestita

and Aesculus californica.

Looking inland the lower foothills and mountain slopes are

here is my only good of the
woodland the mountain - heavily
covered with shrubs and trees.

July 20th
Left Igua, in Cagay River
at 7 A.M. and 3 day with
swimming and wading across.

By 9 A.M.
Arrived in Igua, Co.

Mr. Brown and I set out to follow
Mata. We went by the river and then
up the river to the bridge from the
Cagay River to Igua. It was an
old bridge made of logs and stones
but in a bad condition. We
crossed it and I went up Cagay
River and went for the small village
of Igua.

The village consisted of a few
houses and a few small houses with
the roofs (thatched) and by the side of the road

Pinus jeffreyi

Pinus jeffreyi and was the most
common of the species
may be found the shrubs to 10
inch diameter but as much
as 20 inches tall on the ground.
The largest shrubs are between
10 and 15 feet tall
cordulatus. The leaves
are green on the upper side,
the other side grey and entire imperforate
the remaining scattered, confor-
med whorls and many soft. They
belong to Pinus jeffreyi.

July 10, 1891

Tijon Ranch, Cal.

I went out this morning collecting plants and writing notes. In a small basin I used to come up after the rain.

July 11, 1891.

Tijon Ranch, Kern County, Cal.

We left Tijon Fort this morning at about half past ten, and went down Cañada de las Uvas to the Tulear Plains, following the direct road to Rosic's Station. From that point we turned to the right and proceeded to Tijon Ranch.

Near the bottom of Cañada de las Uvas the oaks become scattered and finally disappear entirely. The ground is covered, in most places sparingly, with dried grass; while the only shrub seen was Iaomenis arborea. In the cañon, along the stream, occur besides the oaks, Acer negundo (Negundo californica), Vitis

Guosa.
californica, *Populus monilifera*, *Platanus* rac-

The plain itself is an even gentle slope, at this part of it, sparingly covered with grass and singularly devoid of shrubbery. The few shrubs that do occur with the identifiable ^{herbaceous} plants that are characteristic are *Helianthus annuus*, *Croton californicum*, *Grindelia*, *Eremocarpus setigerus*, *Mirabilis multiflora pubescens*.

In the vicinity of Tejon Ranch there are large groves of white oaks (*Quercus lobata*), and along the creek that flows past it are cottonwoods (*Populus monilifera*) and dense masses of wild grapes (*Vitis californica*), the climbing the trees and trailing over its banks and forming hummocks three or four feet high.

(Sunday) July 12, 1891.

Tejon Ranch, Kern County, Cal.

Mr. Palmer and I rode to-day to Tejon Pass following up the canon that furnishes water for the ranch, and ascending one of the

higher divides. An old wagon-road extends to within about a half-mile of the summit, and beyond this point the ascent is altogether too steep for a road.

At the lower end of the canon the common trees are Quercus lobata, Q. wislizenii fastigata, some of them attaining a diameter of more than a foot, Platanus racemosa, Populus monilifera, P. trichocarpa. With these are found a few trees of cedar, Libocedrus decurrens.

A few pines (Pinus monophylla) occur with Pinus sabiniana below the yellow pines.

At 3000 ft (computed) Pinus sabiniana called here Digger pine or bull pine, ^{begins and soon becomes} ~~is~~ abundant. At an altitude of about ft, Artemesia tridentata begins and continues to be the most characteristic shrub up to about the summit of the divide.

The next zone is that of Pinus ponderosa. It contains also as a characteristic tree, Abies concolor, and higher up Pinus lambertiana. Two easily distinguishable forms of Pinus ponderosa occur, one at a lower altitude, a tall large tree, lanceolate or triangular-lanceolate in outline, with an acute top, and small cones with thin narrow scales. One of the larger trees

was 16 ft 7 in in ~~the~~ circumference. The other form grows at a higher altitude (from the summit to about three hundred feet below), and is a smaller tree with usually oblong outline and a rounded top (apparently due to the continued tendency of the uppermost shoots to be broken by the wind) and a much larger heavier cones. This latter form is the same seen on Frazer Mountain and appears to be the true Pinus ponderosa jeffreyi.

The computed altitude of the summit that we reached is 5800 ft. From this point we could look down upon the eastern part of the Mojave Desert in the direction of Willow Spring. Neither Mojave Butte nor the mountains south of Antelope Valley could be seen.

We descended by the same route.

The altitude of Tejon ranch was called 1450

July 13, 1891.

Bakersfield, Kern County, Cal.

We left Tejon ranch this morning and took the direct road from there to Bakers-

field, going into camp about a quarter-mile north of the town.

The road across the plains is very level and hard, in some places somewhat dusty and with but a mile or two of sand. There are no trees until one approaches Bakersfield, where they occur along the ditches and streams.

The higher portions of the plain, near Tijon ranch, are characterized by the same plants mentioned in the journal for the 11th inst. with the addition of Asclepias erosa.

The lower portions are moister and somewhat alkaline and are characterized in various parts by Atriplex polycarpa, Distichlis maritima, ~~the~~ Salicornia ambigua, Spirostachys ocedentalis, Sporobolus arioides, Suaeda suffruticosa, Suaeda and Frankenia grandifolia.

A portion of the higher plain towards Tijon ranch was characterized by the presence of Opuntia basilaris.

At Bakersfield we met Dr. & Mrs. Moriam & the baby. Dr. Moriam has been ordered to the Pribilof Islands and leaves for Visalia ^{to-night}.

July 14, 1891.

Bakersfield, Kern County, Cal.

I remained in camp to-day making notes and cataloguing plants. Mr. Palmer has gone to San Francisco with Dr. Merriam.

July 16, 1891.

Poso, Kern County, Cal.

Beth and I, with Mc Grath, left for this point to-day.

The teamster was misdirected as to the road and shortly before noon we reached Poso Station, on the Glendale stage line. We therefore turned down the bed of the creek for two or three miles at which point we came upon the old road along Poso Creek. This we followed for three or four miles more after which it turned northward from the creek to the station Poso on the Southern Pacific R.R. The entire distance from Poso Station to Poso is about 14 miles. We went into camp at Poso.

The road from Bakersfield to Poso Station after crossing the Kern River bridge lies over

dry clay foothills almost entirely bare except for the now dead and closely grazed annual vegetation.

Some of the washes contain a leafless and seemingly dead shrub, and the only other scant vegetation is Asclepias erosa, Eremocarpus setigerus, Grindelia, Opuntia, and an occasional Cucurbita foetidissima and digitata.

In the vicinity of Poso Station were seen also Ionomia arborea, Atriplex canescens, Mirabilis multiflora pubescens

Poso Creek itself is at this season quite dry, and its bed is filled with a fine very yielding sand. The fall of the stream is very gentle, and no gravel is carried along in it. The trees along its banks are cottonwoods (Populus monilifera) and willow (Salix nigra) and sycamores (Platanus racemosa).

The plains beside Poso Creek are the same in vegetation as those described.

Many ranches through this region are deserted. The divide between Bakersfield and Poso Station is about eight hundred feet higher than Bakersfield.

July 16, 1891

Near Tipton, County, Cal.

We left Paso this morning and proceeded along the railroad to this point, camping by a ranch on the bank of Tule River, about $1\frac{1}{2}$ miles north of Tipton.

The country traversed is a dry, hot, clay plain, and like that seen yesterday is devoted to the raising of barley and to grazing. There is such a scarcity of water that fruit and alfalfa can scarcely be grown.

Tule River is dry and bears along its banks a few white ~~July 17~~ oaks (*Quercus lobata*) and sycamores.

July 17, 1891.

Visalia, Tulare County, Cal.

We continued this morning along the railroad to Tulare and then followed the motor road to Visalia, reaching here about eleven A.M.

As we approached Tulare, white *Quercus lobata* became frequent in the fields and there was

every evidence of a moister soil. Fruit is quite generally cultivated, and alfalfa fields as well as barley became numerous.

Between Tulare and Visalia all the land is fenced, and devoted to agricultural purposes as noted ^{above}. The natural pasture are of salt-grass, with a little Distichlis maritima Juncus mexicanus intermixed.

We went into camp about a mile and a half north and slightly ~~east~~ ^{east} from the town on a ranch worked by Mr.

July 18, 1891.

Visalia, Tulare County, Cal.

I went to town this morning and this afternoon wrote up notes and catalogue.

(Sunday) July 19, 1891

Visalia, Tulare County, Cal.

Beth and I went to church this morning, and in the afternoon remained in camp.

July 20, 1891.

Visalia, Tulare County, Cal.

I went collecting this morning along the road as far as the river, northward from camp about a half-mile. In the afternoon I catalogued specimens and later went to town.

July 21, 1891

Visalia, Tulare County, Cal.

I collected a few plants to-day near the camp, and spent the rest of the day cataloguing and writing notes.

July 21 to 24, 1891.

Visalia, Tulare County, Cal.

These days were occupied in outfitting for the Mt. Whitney expedition. Mr. Bailey, with Dr. Fisher, arrived from Bakersfield and Mr. Palmer from San Francisco.

July 25, 1891.

Three Rivers, Tulare Co., Cal.

We left Visalia this morning, Bailey, Beth, and myself, with two packers, and proceeded

by the regular Mineral King road to this point.

Until we reached the foot-hills the vegetation was similar to that about Visalia. In the first foot-hills Quercus douglasii began. Three Rivers lies at about ft, according to Mr. Bailey, above Visalia. I was thrown from my horse, and my aneroid damaged, just before lunch.

(Sunday) July 26, 1891
Kane's Flat, Tulare Co., Cal.

We left Three Rivers this afternoon at about 1 o'clock, after a portion of the forenoon had been spent collecting about Kaweah River opposite, or a short distance below, Three Rivers. This place is, according to Mr. Bailey, about ft higher than Visalia.

July 27, 1891
Tulare Co., Cal.
First Sequoia camp, Mineral King Road,

We reached this place this afternoon and went into camp by the stream that flows down the cañon into Kaweah River. Here I saw for the first time Sequoia gigantea.

July 28, 1891.

First Sequoia camp.

To-day Mr. Bailey and I went down the road about $\frac{3}{4}$ mile to a hog-back with an old house on it, and turned down the steep slope through the chaparral to the river, descending about 1000 ft below camp to the mouth of the stream that flows by it. We retraced our steps by nearly the same route. In the afternoon I remained at camp cataloguing specimens.

July 29, 1891.
Tulare Co., Cal.

Mill camp, Mineral King Road.

We left camp soon after lunch to-day. I spent the forenoon collecting in the cañon near camp to an altitude of 200 ft above it. After lunch we proceeded to this point about $\frac{1}{2}$ mile above the saw-mill

July 30, 1891.

Mineral King, Tulare Co., Cal.

This morning I catalogued specimens and collected a few things about camp. At about three o'clock we left camp and

and proceeded to Mineral King, camping about $\frac{1}{2}$ mile above the old hotel, on the south bank of the stream under some evergreens.

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